Montana Outdoors

March–April 2006

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Montana State Parks Photo Essay

ALL CREATURES GREAT & SMALL

Why it makes sense to conserve them all

Mistakes, mishaps and misadventures

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Montana Outdoors

MARCH–APRIL 2006

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THE SHAH OF SHEDS "When hunters come in here they don't say a word, because their mouth is just hanging open," says Jim Phillips of Three Forks. So far, he has collected 14,408 antlers, skulls, and horns, which he stores in this 2,000-square-foot "horn house." See page 18 to learn more about shed hunting and why some wildlife officials are concerned about its possible effects on deer and elk. Photo by Thomas Lee.

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COVER The burrowing owl is one of 60 species biologists have identified as needing special attention in Montana. See our story on page 6. Photo by Daniel J. Cox.

Correction

We neglected to credit the bald eagle image on the cover of the January–February 2006 issue. The photograph was taken by Donald M. Jones (donaldmjones.com).

Great start

Awesome photos. My wife and I really enjoy your outdoor magazine, and this photo issue really gets the new year off with a winner. Congratulations to the photographers and all those who helped put it together.

Mike and Sabine Cramer
Oregon City, Oregon

Paying tribute

I have gorged on an eye feast of the most incredible, delectable images of wildlife ever at one table. One of the most amazing shots was of a rising cutthroat trout by Paul Updike. Many of the photos had intimate shots of the animals' eyes. As for the wolverine shot: It is incredibly rare for anyone to get a glimpse of one, let alone a photo. This issue of *Montana Outdoors*, in paying tribute to such magnificent creatures, also pays tribute to the Creator and His other creation, the artist—in this instance being creative and respectful of all creatures.

Charlene Lacey
White City, Oregon

Not completely informative

In your otherwise informative and entertaining article on state versus federal authority over wildlife ("Who Calls the Shots?" November–December 2005), you mention a bill co-authored "by Nevada senator Henry Reid...." The Senate Minority Leader's name is Harry Reid.

Emily Francis
Silver City, Nevada

Honorary Montanans enjoy treaty article

We're Texas residents who have vacationed in different parts of Montana for 23 of the last 25 summers. Our fond memories of your state are kept alive with the bimonthly issues of *Montana Outdoors*. We would like you to know that we've enjoyed every issue we've received, but the article by Daryl Gadbow on Council Grove State Park and the Hellgate Treaty of 1855 (November–December) was especially informative. Our thanks to him, and also to Julie Cajune for her insightful comments. The 1855 Treaty is an important part of Montana history that should be shared with Montana residents and those of us who enjoy your state from afar.

Dan and Sue Robertson
College Station, Texas

New wolf situation requires public scrutiny

I am skeptical of state-based wolf management, which I read about recently in *Montana Outdoors* ("Taking the Reins," November–December). Special interest groups that have historically mismanaged and sought the annihilation of wolves have been indifferent to anything but money and development. They will once again be at strong hand and influence. State management also lacks a broader perspective of wolf management: Wolves cross boundaries, need corridors of wilderness, and are a national treasure to be preserved and protected. This new situation, in which Montana now has management authority over wolves, will have to be watched carefully by those of us who care about wilderness, wildlife, and the preservation of predators.

Roger Hewitt
Great Falls

No arrows in mammoths

My compliments to *Montana Outdoors* for the beautiful photo essay "Taking the Hunt to a Higher Level," in the September–October 2005 issue. The photos chosen by your editors were vibrantly illustrative of bowhunting equipment, bowhunters, and bowhunting. However, I should point out that prehistoric bowhunters in this part of North America did not kill mammoths, as you state. The bow and arrow is a relatively new weapon here, showing up about 2,000 years ago. Mammoths have been extinct for roughly 10,000 years.

Troy Helmick
Townsend

More on Montana's nonexistent tamaracks

I always look forward to the new issue of *Montana Outdoors*. It is full of great information. However, in the September–October issue you make a common mistake in the Outdoors Portrait titled "Tamarack." This is a fine article highlighting many aspects of what are actually larch trees. Three species of *Larix* are native to North America. Montana has two: Western larch, *Larix occidentalis*, grows in the mesic forests of western Montana, and alpine larch, *Larix lyalli*, grows only at high elevations (6,500 to nearly 10,000 feet) in western Montana mountain ranges. The true tamarack, *Larix laricina*, however, is not native to Montana or other states in the Northwest. Trees and other vegetation sustain Montana's wildlife. It is good to see vegetation articles along with the wildlife articles in *Montana Outdoors*. Thanks for including them.

Vick Applegate
Missoula

Not a fox

What you call a "red fox" on page 10 of your photo issue is really a subadult coyote. Correct me if I'm wrong.

Arlie T. Burk
Eureka

You are correct, as were the many other readers who pointed out our mistake.

TOM DICKSON

Broadening the Focus

If Montana had a "brand," it would be a "W" for "wildlife." That's what a social sciences researcher recently concluded after analyzing websites featuring the name "Montana." She found that wildlife and wild lands were associated more with Montana than with any of the other lower 48 states.

For most of its history, Montana has managed just a small portion of its famous wildlife. Hunters and anglers pay for the management of roughly 80 game fish and wildlife species with their license dollars and federal excise taxes on hunting and fishing gear.

Another relatively small group that has received much emphasis over the past two decades are federally endangered or threatened species. Grizzly bears, bull trout, and a handful of others receive special management emphasis and funding through the federal Endangered Species Act.

Both game and endangered wildlife have received considerable attention over the past century. What have been overlooked, however, are Montana's roughly 550 other species, such as the arctic shrew, pygmy rabbit, black tern, and white sturgeon.

That's beginning to change. Thanks to the federally funded State Wildlife Grants (SWG) Program, Montana and other states are looking at the status of species that fall in the conservation gap between game animals and those listed as officially endangered. Over the past few years, FWP biologists have used SWG funds to find fish in "fishless" prairie streams, discover a new mammal never before recorded in Montana, and create ways to protect both grizzly bears and local residents living on the Blackfeet Indian Reservation.

Recently, Montana and other states each produced a comprehensive fish and wildlife conservation strategy, required by the U.S. Fish and Wildlife Service to ensure they spend SWG grants prudently. Montana's strategy, developed and reviewed by scientists, agricultural interests, conservation groups, and state citizens, identifies 60 "Tier 1" species in greatest need of conservation. The idea is that if we help these animals now, we can prevent them from becoming federally threatened or endangered down the road.

Broadening our scope to look at additional species makes sense for other reasons, too. Anyone who spends time outdoors recognizes that species are connected. For example, a robust mouse population reduces the number of mule deer fawns that coyotes kill, because the small rodents are easier prey. The natural world is filled with these types of ecological connections.

And then there's the fact that the mission of this department is to manage all of Montana's wildlife—even bats, snakes, and salamanders.

Broadening our scope will not reduce the department's desire or ability to manage game species. Our biologists will continue to do what they've always done for game animals. But what may be different is that fisheries biologists might also count and measure blue suckers they find when surveying rivers for sauger. Or we might use SWG funds to pay contractors to survey species such as northern bog lemmings.

Montana has always been a national leader in fish and wildlife management. Our state's healthy and economically valuable game populations are proof. By broadening our management focus, we plan to build on the state's tradition of management excellence and make Montana's wildlife "brand" even more diverse and abundant.

—M. Jeff Hagener, *Director, Montana Fish, Wildlife & Parks*

For more on the Montana Comprehensive Fish and Wildlife Conservation Strategy, see our story beginning on page 6.

NATURAL WONDERS

Q. *I read somewhere there was a Montana state park just 2 acres in size. Can that be right?*

A. Yes it can. Tiny 2.2-acre Fort Owen State Park, near Stevensville, was the site of the first permanent white settlement within the state's boundaries. The park celebrates the life of the lively frontiersman Major John Owen. Even smaller is 1.7-acre Parker Homestead State Park, located near Belgrade.

Q. *Are there any places in Montana still unexplored or so remote they are completely inaccessible to humans?*

A. Considering that people have been roaming this region for at least 10,000 years, it's likely that someone has been almost everywhere within today's state boundaries. According to DeLorme Mapping, which produces *Montana Atlas and Gazetteer*, the areas in Montana with the fewest mapped trails or logging roads per square mile are the Livingston and Lewis mountain ranges in central Glacier National Park. If there's a spot never trod upon by humans, it's likely up there.

Q. *A steak dinner is riding on this one. My brother says there are boa constrictors in Montana. I say no way.*

A. Don't forget to leave a tip. Montana is home to the rubber boa, a uniformly tan snake, 1 to 2 feet long, that lives in forested western Montana mountains and eats mainly mice and shrews. All boas are constrictors, killing their prey by squeezing them to death.

Wonder about some part of Montana's natural world? E-mail us at: tdickson@mt.gov.

ILLUSTRATIONS BY PETER GROSSHAUSER

FWP to offer big game "SuperTag" lotteries

Five lucky hunters will soon get another shot to pursue their dream hunts. Starting in 2006, Montana is offering opportunities to win one of five "SuperTag" licenses. Available for the moose, bighorn sheep, elk, deer, and mountain goat seasons, the new lottery licenses allow the winners to hunt in any Montana hunting district (including the state's famous limited-entry trophy districts). Resident and nonresident hunters may purchase unlimited numbers of the lottery chances at $5 each (proposed price).

Proceeds from the five new lottery SuperTags will go to enhance FWP's game law enforcement and boost public access such as that provided by the Block Management Program, which pays Montana landowners to allow public hunting on their property.

"The 2005 legislature approved the SuperTag concept to raise funds for public access and enforcement while also giving the average hunter another chance at winning his or her hunt of a lifetime," says Ron Aasheim, head of FWP's Communication and Education Division.

The lottery chances will be sold at sporting goods stores and other licensing outlets and through the FWP website. The lotteries will be conducted a few weeks after regular license drawings for each species.

For more information on the SuperTags, including procedures and deadlines, go to fwp.mt.gov.

Yellowstone grizzlies on track for delisting

The grizzly bear population in the Greater Yellowstone Ecosystem (GYE) has grown so robustly over the past 20 years that in November 2005 the U.S. Fish and Wildlife Service proposed taking the bears off the federal Endangered Species List. If the delisting goes as proposed, Montana, Wyoming, and Idaho would have management authority over grizzlies living in areas surrounding Yellowstone National Park. The National Park Service would still manage bears within the park boundaries.

The proposed action could go into effect as soon as late 2006. It would not affect the status of other grizzly bear populations in the lower 48 states, where the animals would still be listed as federally threatened.

Under federal protection begun in 1975, the GYE grizzly population has grown by four to seven percent each year. The total now exceeds 600 animals, more than twice that of 30 years ago. The new population size exceeds the federal threshold for delisting.

Chris Smith, FWP chief of staff, says the delisting proposal is good news for Montana. "It make sense for the state to gain back management authority over its own wildlife," he says.

Not everyone agrees, however. Some environmental groups maintain that the Yellowstone ecosystem is an ecological island cut off from the continent's remaining grizzly populations in the Bob Marshall Wilderness and points north. They say such isolated populations eventually disappear due to inbreeding, food-supply failure, or overharvest.

State and federal officials insist safeguards are in place to ensure the Yellowstone grizzly

JEREMIE HOLLMAN

Biologists say Montana's largest grizzly population, in and around Glacier National Park, also could be healthy enough to merit federal delisting.

CWD still not here, but creeping closer

The good news: Chronic wasting disease (CWD) has not been detected among Montana's wild elk or deer. The bad news, says Neil Anderson, head of FWP's wildlife pathology laboratory in Bozeman, is that the disease is showing up more frequently in surrounding states and provinces.

Anderson says none of the 1,678 deer and 254 elk tested for CWD in 2005 came up positive. Since 1998, Montana has tested 9,000 wild deer and elk with no sign of the disease.

However, in 2005 Saskatchewan reported another 12 confirmed cases; Alberta reported its first case of CWD in a wild deer killed by a hunter; and three wild elk, a mule deer, and a white-tailed deer in South Dakota all tested positive.

"We continue to survey in areas near those states and provinces," says Anderson. "The odds are good that CWD will eventually show up in Montana's wild deer and elk."

SAM CURTIS

Neil Anderson removes brain tissue from a hunter-harvested deer.

MONTANA FWP

In this 1940s scene from the new documentary *Back from the Brink*, mountain goats are transported in pack crates to new locations.

population won't backslide.

"The most recent genetic research shows that the Yellowstone population has no problems with genetic isolation," says Smith. "Montana's vision is to reestablish connections between the Yellowstone and other grizzly populations."

Smith adds that the conservation strategy agreement between the USFWS and the states with grizzlies calls for the continued expansion of the grizzly population and would reinstate federal protection if numbers were to get too low.

New documentary tells amazing story

The restoration of wildlife in Montana is one of the 20th century's great conservation stories. That tale is now being told in a new two-part video documentary, *Back from the Brink: Montana's Wildlife Legacy.*

Produced by Bozeman-based Media Works in cooperation with FWP and the Montana Fish, Wildlife & Parks Foundation, the two-hour video chronicles the depletion of Montana's wildlife during the late 1800s. The main causes: subsistence hunting and widespread habitat destruction. The documentary then tells how Montana hunters, landowners, state and federal agencies, and universities worked together to recover populations of elk, pronghorn, bighorn sheep, mountain goats, game birds, and other wild animals.

It's a story of innovation, optimism, and overcoming incredible odds—notably Montana's vast and diverse landscape. In one segment, retired FWP biologist Merle Rognrud tells how he and four co-workers conducted wildlife surveys covering 75,000 square miles of eastern Montana in the 1940s.

Narrated by actor Joseph Campanella, *Back from the Brink* features historical photographs, film footage, illustrations, paintings, and interviews with hunters, landowners, historians, and wildlife experts. It premiered on Montana PBS January 15 and has been shown in Helena, Butte, Whitefish, and other communities across the state.

The documentary is available to schools, clubs, and individuals in DVD ($25) and VHS ($20) formats. For more information, call (406) 444-6759 or visit mfwpfoundation.org/legacy.

Young hunters make one shot count

When 12-year-old Rebekah Wrights leveled her rifle last fall at a mule deer buck standing broadside about 200 yards away, she was determined to drop the animal with a single shot.

"I didn't want him to suffer," she says. "I wanted to respect the deer and make a quick kill."

> "I wanted to respect the deer and make a quick kill."
>
> —*Rebekah Wrights, age 12*

Wrights was hunting a Block Management Area with her father and mother near Wilsall, in the Shields River valley. The Wrightses spooked a group of muleys from a ravine and watched as a young buck bounded up the other side. He stopped, giving the young hunter her first shot at a deer.

"I didn't shoot until I was ready," says Rebekah. "And when I shot, I could tell he was hit solid." She and her parents found the dead deer just a few yards away.

"That's exactly why we created the One-Shot Hunter Program," says Thomas Baumeister, chief of FWP's Education Bureau in Helena. "We wanted to emphasize good hunting skills. To be a One-Shot Hunter like Rebekah, it takes knowledge, skill, patience, and the right approach."

FWP conceived the One-Shot Hunter Program in early 2006. The department invited Rebekah Wrights and about 800 other recent Hunter Education Program graduates to participate.

"The idea is to build on Montana's hunter education training to help a young hunter go from the basics to becoming a good hunter for life," Baumeister says.

Young hunters who took the time to aim carefully, and then successfully killed their deer, pronghorn, bighorn, or elk with a single shot, received a special cap and a spot on the FWP website for their photo and personal testimonial.

Roughly 20 percent of the One-Shot Hunters were female.

Twelve-year-old Steffan Stroupe of Kalispell, who killed a white-tailed deer, wrote: "The One-Shot Program made me pay closer attention to making my shot count rather than just getting excited."

Baumeister says he hopes to expand the program to include all young Montana hunters and possibly adults.

"The goal of harvesting your animal with a single shot is one that hunters of any age should have," he says.

To see more photos of One-Shot Hunters and read their testimonials, go to the FWP website at fwp.mt.gov, click on "Education," and then "Hunter Education."

THE WRIGHTS FAMILY

Rebekah Wrights, now 13, with the mule deer she shot last fall. Her father, Roy, says all six of his daughters have been taught to hunt in a responsible manner. "We always insist they do things ethically and legally," he says.

MANAGING THE BIG

Why it makes sense to conserve all of Montana's 636 fish and wildlife species.

BY TOM DICKSON

On August 22, 2005, along a large, reed-ringed marsh just a few miles south of Canada and west of North Dakota, two Montana State University fish and wildlife undergrads discovered an animal no one had ever before documented in Montana.

Jenny Flesch and Ashley Beyer, both 21, were helping conduct a small-mammal survey. Funded by Montana Fish, Wildlife & Parks, the survey was the first of its kind in the state's northeastern region. Dressed in jeans, boots, and T-shirts and armed with data forms, a Palm Pilot, a GPS receiver, and peanut butter bait, the pair waded through shoulder-high bulrushes. Their task was to check the contents of small traps they'd set the previous day.

Like two other field crews taking part in small-animal surveys elsewhere in Montana that summer, Flesch and Beyer worked eight days on and six days off. They lived in a small trailer they parked in local campgrounds or next to barns of accommodating ranchers.

That day the wildlife technicians were mainly finding meadow voles, a thumb-sized, mouselike species eaten by weasels, raptors, and coyotes. Then Beyer lifted a trap holding a larger mammal about the size of a Snickers bar, with a stubby tail and a pointed snout. She looked at her partner. Though they'd been identifying small mammals for the previous two months, neither had ever before seen such a creature.

WILLIAM LEONARD

Northern short-tailed shrew

"What is it?" Flesch asked.

"Maybe it's a northern short-tailed shrew."

"Yeah, I think it might be. Look at its tail. This is really cool."

The women had reason to be excited. The northern short-tailed shrew, also called the big short-tailed shrew, is common in the north-central United States and

DOME MOUNTAIN WMA SMALL-GAME SURVEY BY TOM DICKSON

CRITTER COUNTERS On FWP land near Gardiner, two wildlife technicians check traps set the previous day for small mammals—species rarely surveyed by FWP—and record their findings in hand-held computers. In 2005, coworkers conducting a similar survey in northeastern Montana discovered a species never before recorded in the state (left).

PICTURE

south-central Canada. Previous records showed its western range ending in the western Dakotas, not Montana.

Flesch hurried to the truck and phoned her supervisor, Ryan Rauscher, FWP's native species wildlife biologist in Glasgow. After asking them to describe the shrew, he said he was almost positive they had captured a northern shorttail.

Within days of the subsequent verification, FWP issued a press release announcing the remarkable discovery. The technicians were thrilled. "Here we are, two college students," says Flesch, "and we've been able to do something important for wildlife management, something that could really help give exposure to Montana's nongame species."

Not too long ago, undergrads like Flesch and Beyer likely would have been waiting tables during summer break, not conducting groundbreaking wildlife surveys. That's because FWP and other state conservation agencies nationwide had few funds to monitor anything besides elk, deer, trout, and a handful of other game species.

"The big issue has always been money," says Bill Geer, previously chief of Utah's Wildlife Division and now with the Theodore Roosevelt Conservation Partnership. The national hunting and conservation advocacy organization is helping states publicize their efforts to broaden the scope of fish and wildlife management.

Geer says conservation agencies have long recognized their responsibility and mission to conserve all species.

"Managing game animals has been easy, because you have hunting and fishing license dollars to use," says Geer. "But where is the money for conserving all the hundreds of other species supposed to come from?"

The SWG era

For decades biologists, fish and wildlife agencies, and citizen conservationists hoped nongame funding would come from Washington, D.C. After decades of seeing their hopes raised then dashed (see "Waiting for the Dough," page 10), nongame wildlife proponents finally convinced Congress to pass what became known as the State Wildlife Grants (SWG) Program. The initiative provides federal money for states to develop broad-based, comprehensive fish and wildlife programs that address all species.

Since 2001, FWP has received roughly $1 million per year in SWG funds. As required by federal legislation, that money has been matched with private donations, state agency dollars, and in-kind services, bringing the total to $2 million annually. Though just a fraction of the roughly $70 million the department gets each year from license fees and federal funds for game management, the new money dwarfs any previous nongame funding.

To make sure SWG funds are used effectively, Congress required each state to draft a comprehensive assessment of fish and wildlife species and their habitats. Montana finished its comprehensive fish and wildlife conservation strategy in 2005. The 700-page document lists the status and known distribution of every single Montana vertebrate, from the Shira moose to the fathead minnow.

The conservation strategy then goes on to identify roughly 60 "Tier 1" fish and wildlife species, such as the elegant long-billed curlew and the monstrous paddlefish. These animals are either federally listed or are declining in number so quickly they could soon become endangered. The strategy document also identifies critical habitats—aspen galleries, mixed shrub grasslands, wetlands—where Tier 1 species live.

Landowners, hunters, anglers, conservationists, and other citizens reviewed the draft strategy last summer during statewide public meetings. Then FWP submitted the final document to the U.S. Fish and Wildlife Service. Approval is expected sometime in early 2006. Recently, FWP officials met with an advisory committee of other agencies' staff, citizens, stockgrower representatives, and members of conservation groups to decide which Tier 1 species and critical habitats the department should concentrate on managing over the next few years.

Taking a step back

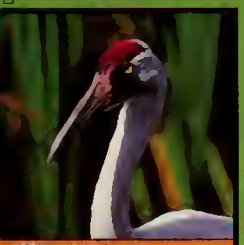
While preparing their comprehensive assessments, FWP and many other states' conservation agencies took a long, hard look at how they manage fish and wildlife.

"What we've been doing is taking a step back and looking at the entire suite of 600-plus vertebrate species in Montana," says Chris Smith, FWP chief of staff. "Our mis-

Tom Dickson is editor of Montana Outdoors.

Spiny softshell
MASLOWSKI PHOTO

DONALD M JONES


Whooping crane

SHEDD AQUARIUM
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GARY LEPPART

Western toad

Paddlefish

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Bull trout

Townsend's big-eared bat

Piping plover

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MASLOWSKI PHOTO

Canada lynx

Olive-sided flycatcher

Burbot

Meadow jumping mouse

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MASLOWSKI PHOTO

GREAT AND SMALL CREATURES Over the past two years, scientists assessed the status and health of Montana's 638 fish and wildlife species. They then identified the 60 species, many shown here, most in need of conservation, such as through habitat protection and restoration. Funding to assess and manage these species comes from the State Wildlife Grants Program.

sion is to conserve and manage Montana's wildlife—*all* its wildlife. But our focus over the past century has been almost exclusively on game species—specifically big game—and more recently, on a few threatened or endangered species."

One of the first things agency officials did with the new SWG money was begin several sorely needed surveys of fish and wildlife species never before monitored in Montana. Crews seined and electroshocked prairie streams in the state's eastern half and found blue suckers, sicklefin chubs, shorthead redhorse, and other species in waters previously considered devoid of fish. Crews monitoring reptile and amphibian populations discovered that leopard frogs no longer show up west of the Continental Divide. Working with the Montana Natural Heritage Program (See "Lewis and Clark with Palm Pilots," page 13), other crews surveyed sagebrushlands, grasslands, and wetlands in search of rare wildlife such as black terns and blue-gray gnatcatchers.

"The first step in managing game or nongame wildlife is to find out which species are out there, how abundant they are, and where they live," says Rauscher, the native species biologist. "Without that information, we could waste time and resources on species that appear to be disappearing but actually are doing well. Meanwhile, we'd miss helping other species or populations that are declining to the point where it's too late."

Looking at the big picture

As part of its comprehensive conservation strategy, FWP is also broadening its habitat focus to take in entire geographic areas in need of conservation.

"Instead of just looking at one elk habitat here and one grizzly bear habitat there," says Smith, "we're taking a step back and looking at entire landscapes that support many different game and nongame species, and then figuring out how best to conserve them."

Taking a landscape approach to managing fish and wildlife is nothing new. Anglers know that dams and logging practices many miles away can affect fishing in local waters. Duck hunters have long understood the need to consider both waterfowl breeding and wintering habitat that stretches thousands of miles across North America.

"Montana hunters and FWP have been working together to manage game animals this way for decades," says Smith. "Fifty years ago, biologists identified critical winter range and, with the support and leadership of hunters, we secured that habitat. This landscape approach is the same habitat model we've always followed, the same one we used to develop Habitat Montana."

Not all species will benefit from the landscape management approach. For instance, the Coeur d'Alene salamander in northwestern Montana lives only in the mist spray of waterfalls. "So in a case like that, we'd need to conserve those specific habitats if we are

WAITING FOR THE DOUGH

Strong interest in conserving nongame species in the United States goes back more than a century. But public funding to conserve those species only recently arrived.

In the late 1800s, the National Audubon Society was formed to protect herons, egrets, and other "plume" birds being killed to adorn women's hats. The new conservation group then pushed for passage of the Lacey Act of 1900, which banned interstate shipments of illegally killed wildlife.

The subsequent 20th-century wildlife conservation movement focused mainly on elk, deer, waterfowl, trout, and other game animals. In 1937, the Federal Aid in Wildlife Restoration (a.k.a. Pittman-Robertson) Act earmarked federal excise taxes on rifles, shotguns, and ammunition to state wildlife agencies for habitat acquisition and research. Game fish management got a similar funding boost in 1950 with passage of the Federal Aid in Sport Fish Restoration (a.k.a. Dingell-Johnson) Act, which returns excise taxes on fishing equipment to the states.

By the 1960s, conservationists were again focusing on dwindling numbers of whooping cranes, peregrine falcons, and other nongame bird species, as well as predators such as gray wolves and Canada lynx. In 1973, Congress passed the Endangered Species Act, which created a procedure for listing species as threatened or endangered and required state and federal agencies to develop recovery plans.

Over the next three decades, the ESA provided federal funds to Montana and other states to monitor, study, and conserve the habitat of species such as the bull trout and black-tailed ferret that were considered at risk of disappearing. Meanwhile, hunters and anglers continued to fund game species management.

What was missing, however, was a funding source for managing songbirds, small mammals, reptiles, amphibians, and hundreds of other animals—the species that fell in the large gap between game and endangered.

Beginning in 1980, conservationists raised their hopes that financial help was forthcoming. The Forsythe-Chaffee Act passed that year promoted the conservation of nongame fish and wildlife. The celebration was short-lived, however, because the act was never funded.

Determined to find a funding source with broad-based support, the International Association of Fish and Wildlife Agencies created the Teaming with Wildlife Initiative in the mid-1990s. This team of 3,000-plus scientists and wildlife conservation group leaders developed a funding plan based on establishing a federal excise on backpacks, birdseed, and other outdoors items. It was modeled on programs previously established for hunting and fishing gear to provide funds for game fish and wildlife management.

Though many retailers and manufacturers supported the resulting Conservation and Reinvestment Act (CARA) proposal, enough resisted to prevent the legislation from passing.

ANDY LONG

Black-footed ferret

to help that specific salamander," says T.O. Smith, who was hired to coordinate FWP's comprehensive conservation strategy. "But that is what we mean by 'comprehensive.' We're developing customized conservation strategies for tiny microhabitats and entire grassland ecosystems, depending on what various fish and wildlife species need."

Seeing the connections

If FWP is broadening its focus to include more species, does that mean the department will spend less time on traditional game animals such as elk, walleyes, and mule deer?

Not at all, says Chris Smith. "As always, game species will be our primary focus."

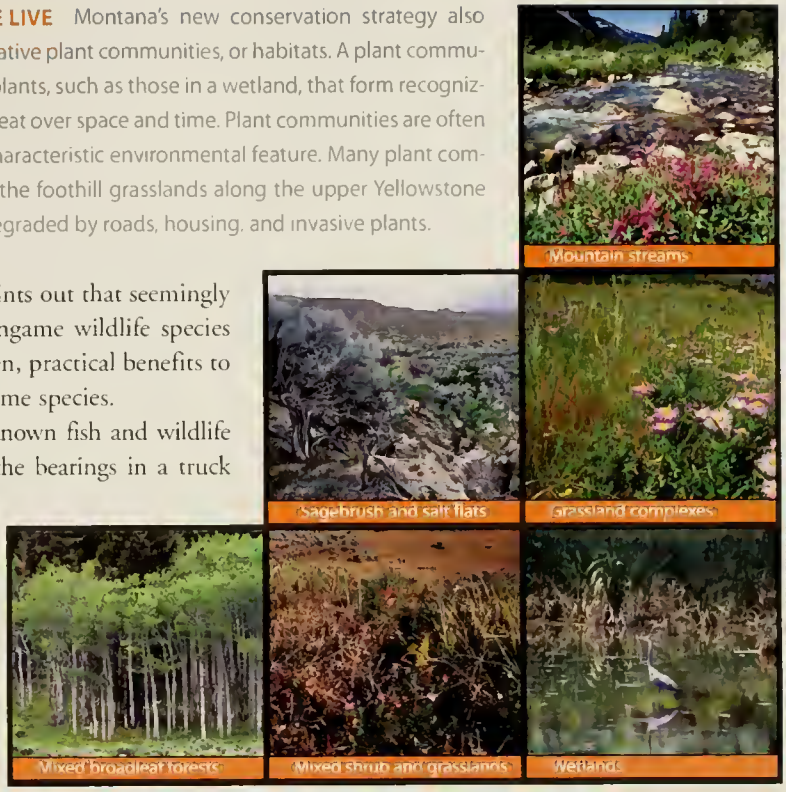
What will be different, he explains, is that FWP will now be able to pay more attention to other critters. "We'll have federal funds to conserve habitat for, say, the black-backed woodpecker or the pygmy rabbit, which would in turn benefit elk and mule deer that use those same habitats," he says.

WHERE WILDLIFE LIVE Montana's new conservation strategy also identifies critical native plant communities, or habitats. A plant community is a group of plants, such as those in a wetland, that form recognizable units that repeat over space and time. Plant communities are often named for their characteristic environmental feature. Many plant communities, such as the foothill grasslands along the upper Yellowstone River, are being degraded by roads, housing, and invasive plants.

Smith also points out that seemingly insignificant nongame wildlife species often have proven, practical benefits to highly valued game species.

"These little-known fish and wildlife species are like the bearings in a truck engine," says Smith. "We might not see them, but if they aren't there, the engine simply won't run."

One example is the Columbian sharp-tailed grouse, a prairie bird that has declined in numbers and range in Montana. Sharp-tails require large, intact grassland habitats to survive. Because they're sensitive to habitat loss, they're a good indicator species for grassland health. Other species that benefit from healthy grasslands include the burrowing owl, the ferruginous hawk, and the sage thrasher.



HABITAT PHOTOS COURTESY CARL HEILMAN

"That was a frustrating time," says Mike Aderhold, a recently retired FWP regional supervisor who has studied national efforts to fund nongame wildlife management. "Many people could see that it made no sense to wait until an animal gets in trouble before spending time and money on it. They were saying, 'Let's figure out how all species are doing now, how land use affects them, and how we might adjust our land stewardship to keep them from becoming endangered.' So it's not like no one understood the concept. It was just that there continued to be no money to do it."

The Teaming with Wildlife and CARA efforts were not wasted, however. In 2001, conservationists finally convinced Congress to pass what became known as the State Wildlife Grants (SWG) Program. The initiative provides federal money to states to develop a broad-based, comprehensive wildlife plan that addresses all species and manages them on a landscape scale.

"The main argument that ensured passage of SWG was an economic one," says Aderhold. "The states and the federal government understood that by broadening the scope of wildlife management, they could avoid the massive expense and problems that come from having to recover species after they've declined to the point where they become threatened or endangered." ■

THE BIRD AND THE BUCK

ANOTHER REASON TO VALUE and conserve nongame wildlife species is that so many of them benefit game species. Take the Clark's nutcracker for example. A relative of the gray jay, the Clark's nutcracker will cache thousands of limber pine seeds across several square miles of the Rocky Mountain Front during late summer. This disperses the hardy, low-growing conifer, which provides essential winter cover for mule deer. In addition, says Dr. Dayna Baumeister, a Helena ecologist who has studied limber pine on the Rocky Mountain Front, the trees also provide shade and wind protection for Douglas-fir and wax currant. These two mule deer habitat species are unable to grow in the harsh mountain environment without the microclimates provided by limber pine.

"It's pretty well understood that without the Clark's nutcracker, there'd be far fewer limber pines, Doug-fir, and wax currants along the Front," Baumeister says.

And without limber pines and their associated vegetation, there'd be fewer mule deer.

"Those conifers are critical thermal cover," says Gary Olson, FWP wildlife biologist in Conrad. "Up here along the Front, you'll often find mule deer and elk beds on the lee side of limber pine and Douglas-fir stands."

ALL PHOTOS FORESTRYIMAGES.ORG

TOP TIER SPECIES

Montana's 60 "Tier 1" species, identified as being in greatest need of conservation:

Fish	
White sturgeon	*Acipenser transmontanus*
Pallid sturgeon	*Scaphirhynchus albus*
Paddlefish	*Polyodon spathula*
Short-nosed gar	*Lepisosteus platostomus*
Yellowstone cutthroat trout	*Oncorhynchus clarki bouvieri*
Westslope cutthroat trout	*Oncorhynchus clarki lewisi*
Columbia Basin redband trout	*Oncorhynchus mykiss gairdneri*
Bull trout	*Salvelinus confluentus*
Lake trout	*Salvelinus namaycush*
Arctic grayling	*Thymallus arcticus*
Sturgeon chub	*Hybopsis gelida*
Sicklefin chub	*Hybopsis meeki*
Pearl dace	*Semotilus margarita*
Blue sucker	*Cycleptus elongatus*
Trout-perch	*Percopsis omiscomaycus*
Burbot	*Lota lota*
Sauger	*Stizostedion canadense*
Amphibians	
Coeur d'Alene salamander	*Plethodon idahoensis*
Western toad	*Bufo boreas*
Northern leopard frog	*Rana pipiens*
Invertebrates	
Western pearlshell	*Margaritifera falcata*
Reptiles	
Snapping turtle	*Chelydra serpentina*
Spiny softshell	*Trionix spiniferus*
Western hog-nosed snake	*Heterodon nasicus*
Milksnake	*Lampropeltis triangulum*
Smooth greensnake	*Liochlorophis vernalis*
Birds	
Common loon	*Gavia immer*
Trumpeter swan	*Cygnus buccinator*
Harlequin duck	*Histrionicus histrionicus*
Bald eagle	*Haliaeetus leucocephalus*
Greater sage grouse	*Centrocercus urophasianus*
Columbia sharp-tailed grouse	*Tympanuchus phasianellus columbianus*
Yellow rail	*Coturnicops noveboracensis*
Whooping crane	*Grus americana*
Piping plover	*Charadrius melodus*
Mountain plover	*Charadrius montanus*
Long-billed curlew	*Numenius americanus*
Interior least tern	*Sterna antillarum athalassos*
Black tern	*Chlidonias niger*
Flammulated owl	*Otus flammeolus*
Burrowing owl	*Speotyto cunicularia*
Black-backed woodpecker	*Picoides arcticus*
Olive-sided flycatcher	*Contopus cooperi*
Sedge wren	*Cistothorus platensis*
Nelson's sharp-tailed sparrow	*Ammodramus nelsoni*
Mammals	
Spotted bat	*Euderma maculatum*
Townsend's big-eared bat	*Corynorhinus townsendii*
Pallid bat	*Antrozous pallidus*
Pygmy rabbit	*Brachylagus idahoensis*
Hoary marmot	*Marmota caligata*
Black-tailed prairie dog	*Cynomys ludovicianus*
White-tailed prairie dog	*Cynomys leucurus*
Great Basin pocket mouse	*Perognathus parvus*
Northern bog lemming	*Synaptomys borealis*
Meadow jumping mouse	*Zapus hudsonius*
Gray wolf	*Canis lupus*
Grizzly bear	*Ursus arctos horribilis*
Black-footed ferret	*Mustela nigripes*
Canada lynx	*Felis lynx*
American bison	*Bos bison*

ple of connections among game and nongame wildlife: When rodent population cycles are up, coyotes have more available prey and don't go after newborn deer.

The links between small fish and big fish are just as important. "You can't just look at a game fish species like the sauger in isolation," says Brad Schmitz, FWP fisheries manager in Miles City. "A sauger is connected to forage species such as the western plains minnow, which is connected to the water, which is connected to the farmers who use the water to irrigate sugar beets, and so on. Everything is connected, which is why this comprehensive approach makes so much sense."

John Muir may have said it best a century ago. "When we try to pick out anything by itself," the famous naturalist wrote, "we find it hitched to everything else in the universe."

Paying attention to nongame species also helps Montana maintain control over its wildlife. "Some ranchers are afraid we'll come out and find a rare species on their land and they'll have this mess on their hands," says Rauscher. "But it's just the opposite. National groups have already petitioned the U.S. Fish and Wildlife Service to list species like the sage grouse as federally threatened. If our surveys show that those species are doing well and are found in many areas, then it's easier for Montana to stave off federal ESA listing, remove species from petition lists, and maintain state control."

Adds Chris Smith: "The surveys we're doing end up producing the opposite of what we'd see in the past, which is a headline reading 'Another Species Disappearing.' Now, like with the northern short-tailed shrew, we're seeing headlines saying, 'New Species Discovered.' It's a whole different approach."

Keen observers

The approach may be different, but public interest in Montana's full gamut of wildlife species remains unchanged. Early Native Americans in this region highly valued all animals, great and small. Lewis and Clark marveled at every new creature they came upon while crisscrossing the region. In 1928, a contributor to *Montana Wild Life* magazine wrote, "The true sportsman is a keen observer of nature's wonderful creations [and] a sincere advocate for the conservation of nature's useful creations and their welfare."

Craig Sharpe, executive director of the Montana Wildlife Federation, believes such sentiments remain strong among Montana hunters, anglers, and the thousands of other residents interested in wildlife. "More and more people are starting to see the big picture," Sharpe says. His organization so strongly supports the comprehensive management approach that it recently hired a communications specialist to help FWP spread the word about SWG projects.

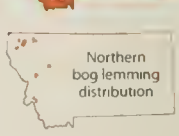
The information will likely find a receptive audience. A 2005 FWP survey found that most Montanans want the department to do more for nongame wildlife. That does not surprise Flesch, the undergrad who helped find the northern short-tailed shrew last summer.

"It was amazing how people perked up when they heard we were doing a small-mammal survey," she says. "At a ranch south of Glasgow, the rancher came up to us and said we should set our traps over there and we'd catch 'kangaroo mice' [Ord's kangaroo rats]. We thought his place was too far north for kangaroo rats, but he was right. That rancher had noticed those jumping 'mice,' and he was interested in sharing his observations with us. We met people like that all the time."

To learn more about the Montana Comprehensive Fish and Wildlife Conservation Strategy, go to fwp.mt.gov/wildthings/cfwcs.

SPECIES DISTRIBUTION MAPS

A valuable product of ongoing nongame wildlife inventories is a series of state and county species distribution maps. The map of the American badger, for example, shows the species lives throughout Montana. The northern bog lemming map, however, shows just a few locations in the state's northwestern region. "The maps do two important things," says FWP native species biologist Ryan Rauscher. "If a species is widely distributed, it shows that the department and landowners are doing a good job of habitat stewardship. But if a species only shows up in a few spots, that tells us where to focus our efforts and begin working with landowners and other agencies to conserve what habitat remains."



BULLS AND BUNNIES Using new State Wildlife Grants, FWP will be able to protect habitats such as shrub grasslands needed by pygmy rabbits (right) and other nongame wildlife. That, in turn, will benefit game species such as elk that use those same native plant communities.

NICK FUCCI

Elk

KEITH LAZELLE

Pygmy rabbit

LEWIS AND CLARK WITH PALM PILOTS

TO PRODUCE A COMPREHENSIVE conservation strategy, FWP relied heavily on the Montana Natural Heritage Program (MTNHP).

Based in Helena, the heritage program is a sort of modern-day Corps of Discovery. Two centuries ago, Lewis and Clark crisscrossed the region looking for and recording the locations of new plant and animal species. Today MTNHP ecologists, botanists, and zoologists do the same. But instead of inking the information on parchment and sending it to Washington, D.C., heritage program staff members enter the data into computers and then provide detailed, multilayered maps on the internet to the public.

Begun in the mid-1980s, the MTNHP gathers information on Montana native plants, wildlife, and habitats, focusing most on those species in greatest need of conservation. It then compiles databases and maps of that information for use by public agencies, private business, community groups, and individual citizens.

"Sometimes a plant or animal is considered 'rare' only because there's a lack of information showing that in fact it's not," says Sue Crispin, MTNHP director. As an example, she tells of an uncommon thistle found in 2005 in the Helena National Forest. The discovery put the skids on a planned land exchange between the U.S. Forest Service and a private landowner. "But then our botanist identified several new populations of the long-styled thistle elsewhere in Montana, showing that, overall, its status is secure, and clearing the way for the exchange to go forward," she says. "It was a win-win situation for all involved—including the plant."

Highway departments and mining and timber companies use the heritage program's maps to see if planned developments will harm sensitive wildlife, such as mountain plovers or long-billed curlews. "Having this information in the planning stages of projects helps avoid costly delays and conflicts, and lessens damage to wildlife and habitat," Crispin says.

The MTNHP is located at the State Library in Helena and is part of the library's Natural Resource Information System. Each state, as well as many Canadian provinces and Latin American countries, has a natural heritage program. They all pool data to help conserve resources that move across state and international boundaries, such as grizzly bears and migrating neo-tropical warblers.

For more information, visit the natural heritage program website at mtnhp.org.

JANE HITZ

RARE? After a MTNHP botanist found that the long-styled thistle (above) was more common than thought, a land swap was able to proceed.

The Misadventures of Lewis and Clark

It was July 11, 1806, near the Great Falls of the Missouri, and Captain Meriwether Lewis was not a happy continental explorer. The Corps of Discovery had been on the march for the better part of two years. After waiting out a tedious Oregon winter eating moldy elk meat and watching the buckskin clothing rot off their backs, the men were finally homeward bound. They were crossing today's Montana west-to-east on the home stretch. It was downstream all the way to St. Louis, but the going was far from easy.

When they reached Lolo, Lewis and Captain William Clark decided to split up so they could cover more territory. The plan was to meet up later where the Yellowstone and Missouri rivers joined. Clark, Sacagawea, and most of the others headed south up the Bitterroot under the shadow of Trapper Peak. They explored the Big Hole River, crossed Bozeman Pass, and then floated down the Yellowstone. Lewis and his squad followed the Blackfoot River upstream, then rode their horses over the Continental Divide north of Lincoln.

By Ben Long
Illustrations by Mike Moran

Frustration followed Lewis like a lice infestation. Between injuries and disease, his squad of explorers looked like a walking infirmary. They had also lost some of the precious horses obtained from the Nez Perce Indians. And when Lewis finally arrived back at the Missouri River, he found spring floods had swamped a cache of supplies, ruining many of his hard-won scientific specimens. And then there were the grizzlies.

In those days, millions of bison roamed the Great Plains of North America, sometimes dying by the thousands. Often they drowned in the Missouri, plunging through thin ice or getting swept away in high water. Carcasses by the score washed down the Missouri, accumulating in places like the foot of the Great Falls. This heap of odoriferous protein attracted congregations of grizzlies from miles around (like the bear mobs that used to gather around garbage dumps in Yellowstone National Park). The Corps of Discovery blundered into the midst of a grizzly gang and, forced to camp in the area, suffered one sleepless night after another. They named the campsite "White Bear Island."

On the evening of July 11, Private Hugh McNeal was riding bareback alone through a thicket near the river when his horse nearly stepped on a bedded grizzly. The bear was not inclined to retreat. The horse reared, dumping the soldier on the ground, and raced off.

McNeal found himself in an unfavorable position: unhorsed and at the foot of a beast surprised and upset at having its nap so rudely interrupted. The private quickly regained his composure and swung his rifle at the bear like Barry Bonds aiming for a low and outside slider. The blow cut open the bear's skull but also broke McNeal's precious rifle. In the ensuing confusion, as the bear clutched its scalp, McNeal scrambled up a nearby cottonwood. He stayed beyond the reach of the bear until certain it was gone. Meanwhile back at camp, Lewis fretted over the private's long absence. McNeal returned to camp late, with a broken rifle and the best bear story of the expedition.

Lewis and Clark spent 28 months crossing North America. Today, school kids learn about the explorers' many picturesque moments: Clark glimpsing the Little Rockies through his spyglass; Lewis marveling at the misty thunder of the Great Falls; Sacagawea recognizing Beaverhead Rock; Clark carving his name in Pompeys Pillar. Amid all the storied heroics, however, there were numerous all-too-human misadventures. Abridged versions of the Lewis and Clark journals omit these mistakes, misfires, and mishaps, which seemed to occur with uncanny frequency across Montana. And which, often as not, involved some wild animal or another. There were days it seemed to the explorers that all God's critters were out to stop them.

Here's a quiz you won't find in middle school history class: Which of the following mammals drew the most blood from the explorers? a) grizzly bears, b) wolves, c) beavers.

The answer, of course, is beavers.

Members of the Lewis and Clark Expedition ate like wild animals—literally. When they could get it, each member of the expedition consumed 7 to 9 pounds of red meat per day. They needed massive calories to haul their mountain of gear up swift rivers and over rough terrain. Most often, those calories came in the shape of an elk, deer, or bison. The 30-odd-member team would reduce one bison to a pile of bones in a day, eating it down to the entrails and bone marrow. When they had to, they also dined on horses, dogs, and coyotes.

Venison was the preferred meat, but the explorers also loved to munch beaver tails, which Lewis called "a most delicious morsel." Trapped hard by colonists, beavers were already growing scarce in the Atlantic coastal states, but the West was still loaded with them. Beavers were particularly thick in the area around Three Forks.

Clark kept a special poison pen for mosquitoes.

The explorers set traps in the evenings and fired at swimming beavers when they got the chance.

Lewis owned a prized Newfoundland named Seaman, a big, black dog with the heart of a retriever. One day, when one of the men wounded a beaver, Seaman charged after the animal with all the enthusiasm of his breed. There was a great squall and splashing as the creatures tangled. We don't know the fate of the beaver, except that it sliced the dog open in self-defense. Lewis feared for his prized dog's life until he staunched the bleeding.

Kalispell writer Ben Long is the author of Backtracking: By Foot, Canoe, and Subaru Along the Lewis and Clark Trail. *New Jersey illustrator Mike Moran's artwork has appeared in national publications such as the* New York Times *and* Harvard Business Review.

Canine hunters weren't the only ones to run afoul of North America's largest rodent. Mountain man George Drouillard was the expedition's master hunter. A half-Shawnee born in the backwoods, Drouillard was to the Lewis and Clark Expedition what Michael Jordan was to the Chicago Bulls. Day after hungry day, Drouillard brought home the bacon—or more accurately, the venison. While the Corps was crossing the Continental Divide near Lincoln in early summer 1806, Drouillard shot two beavers and wounded a third. When the hunter approached the animal to finish it off, the beaver bit him in the knee with its tree-felling incisors. Luckily, Drouillard was a tough cookie and healed quickly.

Lewis and Clark not only roamed strange lands, but they also wandered amid strange animals. It was not unusual for them to aim their rifles at a creature and wonder, *What the heck is that?* Many of Montana's most familiar wildlife species—pronghorn, mule deer, and coyote—were animals the explorers had never seen before. The most amazing was the grizzly bear.

Truth is, grizzlies never so much as scratched any member of the expedition, even though the bears tried with all their might. The explorers knew of black bears from back home, but they didn't hear stories of the great new bears until 1805 while wintering with the Mandan in what is today North Dakota. A few months later, they saw their first grizzly tracks in a riverbank, "3 times as large as a mans track," wrote Clark.

In April 1805, Lewis and several other hunters killed a 300-pound grizzly near Big Muddy Creek, in far northeastern Montana. It was the expedition's first grizzly kill, but far from the last. Clark and Drouillard killed another a few days later, shooting it ten times with half-inch balls from their muzzle-loading rifles. Lewis called it "a verry large and turrible-looking animal, which we found verry hard to kill," as if marking emphasis with extra r's.

The explorers were so impressed with the tenacity of these "white bears," they took to stalking them in squads, firing carefully timed

volleys at the tough new adversaries. The bears often tried to kill the explorers right back, sometimes sending the men fleeing over a riverbank and into the water. Armed with primitive flintlock muskets and rifles, Lewis and Clark hunted grizzlies with more élan than firepower, and often seemed to escape unharmed from wounded grizzlies more by sheer luck than anything else.

Wolves, oddly enough, were another story. The explorers did not emerge unscathed from all their encounters with the large canines. Wolves were abundant on the prairie, constantly shadowing herds of elk and bison. Along the Rocky Mountain Front near Augusta, Lewis wrote of "vast assemblages" of wolves following the bison like shepherds. At one point along the Yellowstone River, Clark noted in his journal that he would no longer write about the incredible abundance of elk, bison, and wolves, because he figured no one would ever believe him.

For the most part, the wildlife Lewis and Clark encountered had never been hunted with anything other than Stone Age weapons. As a result, wild animals along the Missouri River were often unafraid of humans. Sometimes, the explorers actually had to beat bison with rocks and sticks to clear a path through the herds. Along the Missouri, Clark wrote, "the wolves are fat and extremely gentle." While walking up the river near Loma, the captain found a wolf so lethargic from feasting on bison meat he simply walked up and killed it with his spearlike espontoon.

Not all wolves were so docile. A year later, Clark's squad was sleeping along the Yellowstone River near Billings when a wolf stole into camp and bit Sergeant John Pryor "through the hand." The wolf then turned on Private Richard Windsor before being dispatched by another squad member.

It was one of the very few documented wolf attacks on humans in North America. Clark called the animal "vicious," and speculated it may have been a half-wild wolf–dog mix from a nearby Crow Indian encampment.

Though brave, intelligent, and tenacious, Clark was also the expedition's most prodigious whiner. For the sake of morale, he didn't gripe in front of the men, but when the weather was miserable, the road full of cactus, or the elk meat moldy, Clark complained freely in his journals. Through this grumbling, we get a clearer picture of the hardships the explorers endured. Clark kept a special poison pen for mosquitoes.

Near the confluence of the Missouri and Yellowstone rivers, Clark watched bighorn sheep scramble along the rim rock and breaks above the water. He knew his boss, President Thomas Jefferson, would love to see the burly horns and pelt of this marvelous new species. He loaded his .54-caliber rifle and stalked a big ram.

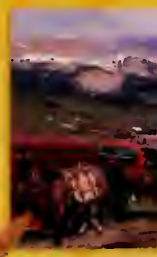
After much effort, Clark approached within range. He thumbed the hammer back and squinted down the barrel. As he tried to aim, however, the ever-present mosquitoes swarmed around his head. In fact, so many mosquitoes alit on the gun that Clark could not see the front sight. Meanwhile the ram, sensing danger and perhaps seeing his pursuer twitching, quickly departed.

Clark was by no means the last rifleman to be foiled by a bighorn, nor the last Montana camper to be tormented by mosquitoes. Indeed, as long as wildlife roam the wild lands of Montana, the adventures enjoyed by Lewis and Clark will still live for centuries to come. The explorers' journey continues to burn in the American imagination. Montanans and others from throughout the country float the Missouri, hike the Bitterroots, and otherwise attempt to revisit the world of Lewis and Clark.

They may even eat a bison steak in a restaurant or, if particularly adventurous, sample a beaver tail. But they'll never dine on one wild meal eaten by Lewis and his men.

That dish was served at Camp Disappointment, on the prairie between Browning and Cut Bank. Lewis had taken some of the expedition there in summer 1806 to explore the Blackfeet country and search for the Marias River's source. Rainy, cloudy skies often plagued the crew. One night, chilled and disappointed from the wet weather, the men cheered up around a campfire meal. The main course was a creature that has come to symbolize the great productivity of North America, as well as the fact that precious things squandered often cannot be regained. That night, unaware of the changes the next centuries would bring to this land, the explorers dined on roasted passenger pigeons.

Shedding Light on Antler Collecting



Participants say it's fun, fulfilling, and potentially lucrative.

CRAIG & LIZ LARCOM

CRAIG & LIZ LARCOM

PHIL FARNES

DONALD M JONES

CRAIG & LIZ LARCOM

OPENING DAY AT SUN RIVER WILDLIFE MANAGEMENT AREA BY CRAIG & LIZ LARCOM

But could "horn hunting" also be harming the very animals that produce this highly coveted treasure? >>>

By Tom Dickson

It's a few minutes before noon on a mid-May Sunday at the Sun River Wildlife Management Area, and several dozen riders and their horses are chomping at the bit.

The riders have been waiting several hours, along with more than 200 others, for the chance to find a shed deer or elk antler on the 20,000-acre winter range, located at the base of the Rocky Mountain Front west of Choteau. For more than a mile, vehicles line the dusty road into the WMA's south entrance. Also known as horn hunters (though they don't actually find horns), the antler collectors are in a festive mood, talking excitedly as they scan distant hills for a tine sticking up from the spring grasses. Some riders don traditional western gear, complete with black cowboy hats and fringed leather chaps. Others sit on ATVs. Most are on foot. A county sheriff patrols the road while an FWP game warden rides his horse along the foothills, keeping everyone honest.

Then, exactly at noon, a warden opens the gate and the crowd rushes into the wildlife area. One rider, a 20-year-old college student from Whitehall, spurs her horse and races for an antler she had spotted earlier from the road.

Across Montana and the country, spring marks the arrival of migrating waterfowl, emerging morels, and, for a growing number of enthusiasts, the appearance of elk, moose, and deer antlers (called "sheds") discarded a few months earlier by their male owners.

Some shed hunters say looking for antlers is like an Easter egg hunt for adults, a way to

JEFF HENRY

UP FOR GRABS Antler hunting proponents point out that even kids can stumble upon a shed treasure. Looking to purchase such finds are commercial buyers, such as those that set up buying stations in Paradise Valley (above).

take part in a traditional spring outing. Others try to enhance their collections, looking for particularly big antlers or the highly prized matched pair. Many hunters look for sheds to learn more about the bulls and bucks they may have seen the previous fall but didn't get. And then there are those doing it for the money. They sell their finds to antler brokers, who in turn sell the bone to Asian markets and local craftsmen.

So popular has the sport become across the United States that some kennels train and sell dogs that find and even retrieve shed antlers in the wild.

Antler hunting's growing appeal concerns some wildlife and enforcement officials. They point to increasing problems with shed hunters entering off-limit areas and harassing elk at a time of year when the animals may be weak. "Early spring is when ungulates are at their lowest physical condition of the year," says Tom Carlsen, FWP wildlife biologist in Townsend. "Unfortunately, that's right during some of the most intense antler gathering activity."

Family fun

"We urge our members not to bother the animals too early in the season," says Mark Miller, co-president of the Wisconsin-based North American Shed Hunters Club. "And we also promote shed hunting on foot. You cover more ground on an ATV, but you also miss more sheds."

Miller says shed hunting has been growing steadily since his club was founded in 1991. "It appeals to both hunters and nonhunters, and everyone can do it," he says. "It's a way to enjoy the outdoors in the spring, and kids especially like it."

Thomas Baumeister, chief of FWP's Education Bureau, calls antler hunting a "very democratic" activity. "Even a kid can stumble upon a huge elk shed," he says.

Many shed collectors, says Miller, are hunters who look for antlers to learn more about their quarry's age and range.

"When you find a shed antler, you get a history of the deer," he says. "It indicates where the animal has been and shows that he's still out there and didn't get harvested the previous fall—and that he's growing bigger antlers than the one you're holding."

Baumeister, an avid antler collector, says shed hunting satisfies him the same way hunting does. "And it's inexpensive, you can do it in the spring, and there's always the potential of finding a truly big antler," he says.

Miller, who also hunts mule deer and collects antlers in eastern Montana, says a shed hunter's ultimate goal is to find a matched set from the same deer or elk.

"That can be as hard and rewarding as shooting a big buck or bull," he says.

It can also be potentially lucrative. Though most shed collectors are just hoping to find something to adorn the fireplace mantle, some are in it to make a profit. With top-grade (newly shed) antlers selling for roughly $10 a pound, and a single elk shed weighing in at 10 to 15 pounds, a lucky shed hunter in a prime area can make several hundred dollars for a few hours' work.

Don Schaufler of Ennis is the largest antler dealer in North America. Last year his Antlers Unlimited business sold more than 100 tons nationwide. Schaufler says the antler market is greatest in Asia, where sheds are ground to powder and used for medicinal purposes (though not as so-called aphrodisiacs, which come from antlers in summer velvet sawed off living, farmed cervids). A fast-growing market in this country has been among artisans. They use antlers to make knife handles, cabinet knobs, furniture, and the massive chandeliers hanging in resort lobbies and log mansion living rooms.

Some concerns

The growing demand for antlers has some wildlife and enforcement officials worried that overaggressive shed hunters could harm

The Las Vegas of Antler Action

LATHAM JENKINS/JHSTOCK.COM

The world's biggest antler collecting and buying event is Wyoming's Jackson Hole Boy Scout Elk Antler Auction, which is conducted each year the third weekend of May. Only the Boy Scouts may collect shed antlers from the several thousand elk wintering on the nearby National Elk Refuge. Roughly 10,000 pounds of antlers are auctioned off in downtown Jackson to bidders from around the world. (Some sheds are also used to repair the famous antler arches surrounding the town square.) The scout troop keeps 20 percent of the proceeds and donates the rest back to the refuge. "We use the money to irrigate fields of native grass that elk feed on in the winter," says refuge manager Barry Reiswig. "It's an unusual arrangement, but it seems to work pretty well here."

JUDY WANTULOK

HALFWAY GONE? During harsh winters, elk and deer can be weak and vulnerable when they finally drop their antlers. Some wildlife officials worry the animals can be stressed by overeager shed hunters.

wildlife. In winter, says Gayle Joslin, FWP wildlife biologist in Helena, deer and elk lose body fat because they can't consume and conserve enough calories. When possible, the cervids bed down in sunny spots to reduce energy loss due to cold temperatures, deep snow, and limited food.

Whether afoot, on horseback, or riding ATVs, antler collectors can spook elk and deer, causing the animals to expend precious energy. Though there's no concrete evidence proving that shed hunters cause elk or deer mortality, "some research shows that elk calves have a lower survival rate when born of cows that lose too much of their body weight over winter," says Carlsen, the Townsend biologist.

JEFF HENRY

NOT YET FWP delays opening many WMAs to protect late-winter elk.

Technically, sheds are not considered wildlife, so state and federal agencies have no jurisdiction over their harvest or sale. But they can control access to some public lands where wintering deer and elk concentrate. Though national forests are open year-round to shed hunting, national parks do not allow collecting at any time. And to protect elk during their vulnerable period, FWP prohibits access to the Blackfoot-Clearwater, Beartooth, and several other big game wildlife management areas until May 15. Sun River opens at noon that day; the others open at midnight. (However, FWP opens a few WMAs near Yellowstone National Park on May 1 to move elk off the winter range, where they can overgraze forage, and back into the the park.)

Some antler hunters won't wait that long. One year in the mid-1990s, a warden marked 77 antlers and placed them around the Dome Mountain WMA between Gardiner and Livingston. When the area officially opened a few months later, more than half had already been picked up illegally.

FWP game warden Bryan Golie of Cascade says he and other wardens enforce the antler hunting openers on state WMAs to provide equitable opportunities.

"These are the public's game ranges and the public's elk," he says. "It's just not fair to the other people who follow the rules and wait until the legal opening date for someone else to sneak out there and steal antlers ahead of time."

No easy pickin's

It's mid-afternoon back at the Sun River WMA, and dozens of horn hunters have returned to their vehicles. Baumeister, the FWP education chief, has just come down from the surrounding hills with his four-year-old son, Alexander. Last year, the pair were lucky to find a winterkilled elk skull with antlers attached. This year, however, they came up blank. "But that's part of what's so neat about antler hunting," Baumeister says. "There's a challenge here of beating the odds, of expending time and energy to find something of personal value."

Mark Schlepp, manager of the nearby Freezout Wildlife Management Area, stands at a check station measuring, counting, and weighing antlers. He says this opener at Sun River was a bit below average, with about one hunter in five finding an elk or mule deer shed.

"On a good year, it's about one in three," Schlepp says. "But this year, the lack of snow kept elk farther up into the mountains. Most of the bulls stayed back there all winter."

Which makes those who did locate sheds today all the more proud of their finds. As the Whitehall college student rides past on horseback, a beefy 16-pound elk antler in her lap, she announces, "This one is going in the living room."

Find antlers without bothering their previous owners

When: Wildlife officials urge antler hunters to wait until mid-May to keep weakened elk and deer from being bothered. Many big game wildlife management areas don't open until midnight May 15 (noon on the Sun River WMA).

Where: You can find deer or elk sheds where bucks and bulls hung out when they dropped their antlers, which for deer begins in January and for elk begins in March.

Expert antler collectors comb known wintering areas, such as south- or southwest-facing low-elevation slopes and the bottoms of large valleys with little snow. (Elk and deer avoid deep snow, which covers food and causes the animals to burn up energy when walking.)

In early spring, elk and deer slowly move up into forested areas, following the receding snow line and feeding on newly sprouted vegetation. Bulls and bucks lose their antlers along fences, in bedding areas and brushy areas, and while bumping boulders as they lick sand for minerals. The animals feed and bed on south-facing hillsides during the day and move to north-facing woods at night.

How: There aren't many tricks to antler hunting, which is why even kids can find sheds. Many collectors go to high vantage points and scan the ground with binoculars, looking for telltale tines (which are often not off-white, as you might expect, but brown). Jim Phillips of Three Forks, who has found more than 14,000 sheds since he began searching as a boy in 1958, says his secret is to cover a lot of territory and keep his eyes on the ground. "I'll walk 12 miles a day looking all over the place," he says. "I can't tell you how many times I've found antlers where other shed hunters—good shed hunters—have already been."

Word of warning: Phillips adds that shed hunting can be addictive, and that it can also impede hunting success. "During hunting season, I don't see many deer anymore," he says. "I'm always looking down at the ground."

Capturing a Canine Ghost

BY ANDREW MCKEAN

The wire cage that glints in our headlights looks out of place on this frozen prairie knoll. But what's inside the cage belongs on the lonely landscape just as much as the gramma grass that waves in the wind blowing out of Saskatchewan, just a dozen miles to the north.

It's a swift fox, and it is not happy being confined. On this chilly late December night, the sand-colored canine paces back and forth in the trap, eyes flashing red in our headlights. Its fluid, wary movements remind me of a wolf, but the fox is as small as a house cat, with buff-colored ears that look too large for its head, a bushy, black-tipped tail, and a luxurious dun-colored coat highlighted in black and orange.

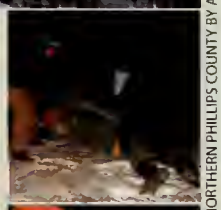
Cody Dix and Becky Filipowicz lift the trap, tipping the fox into a canvas sack, which they weigh. They then take a few other measurements, inspect the fox for parasites, and determine its gender. Next, the two FWP wildlife technicians gingerly work the fox's head out of the bag so they can measure its teeth, pluck a hair sample, and stamp a tattoo in its right ear. Finally, they lay the bag on the ground, open the end, and stand back. The fox bolts free into the night, casting a quick backward glance to see that it's not being followed.

The fox is right to be cautious. After all, it was humans—armed with strychnine, rodent poisons, and prairie-eating plows—that removed the species from Montana more than 40 years ago. Described by fur-era trappers as the most abundant canine on the shortgrass prairie of eastern Montana, swift foxes have been slowly recovering in northeastern Montana since the early 1980s, when wildlife agencies in Alberta and Saskatchewan began releasing several hundred of the animals. Since then, the canines have been expanding their range south and increasing their densities. Dix and Filipowicz are here on the prairie in northern Phillips County to document the extent of that expansion.

The technicians drive to another township and check a string of bacon-baited traps. They'll finish at sunrise, sleep most of the day, and then resume their trapping at midnight. Their work, along with that of another swift fox team working north of Havre, is revealing the existence of dozens more swift foxes than previously thought in the desolate country between the Milk River and the Canadian border.

Ryan Rauscher, FWP's native species wildlife biologist in Glasgow, says Montana is working with the provinces to repeat a cooperative survey they conducted five years ago. Wildlife technicians are surveying 92 townships in northwestern Montana while the Canadians survey another 106 townships of prairie habitat north of the border.

In 2001, technicians captured 38 individual foxes during the three-month capture season, Rauscher says. "This year we have already captured 73 individuals, and we still have a month to go."



SWIFT FOX MONITORING IN NORTHERN PHILLIPS COUNTY BY ANDREW MCKEAN

TEMPORARY CONFINEMENT Curious canines, swift foxes are easy to catch in livetraps. In 2005, FWP technicians captured and measured dozens of the cat-sized animals, which are making a remarkable comeback in prairie Montana after having been nearly extirpated (made locally extinct) from strychnine, rodent poisons, and prairie plowing. Biologists now believe hundreds of swift foxes have recently moved south to Montana from Canada releases.

Even more remarkable than the increase is that swift foxes are dispersing far from the border areas where they were initially released. "We have recaptured foxes well inside Montana that the Canadian crews initially captured earlier this winter," says Rauscher. "And we have reports of swift foxes moving south toward the Missouri River. That's evidence of dispersion into vacant habitat. We still have a relatively abundant amount of native prairie in northeastern Montana, so I think we're just seeing the beginning of a widespread presence of foxes across this part of the state. I'd like to think this population can recover to the extent that we could even allow some carefully regulated trapping in the future."

Unlike the red fox, which thrives in river bottoms, the swift fox is well suited to upland prairies. The size of jackrabbits, they can run nearly 40 miles per hour. The predators feed on rodents, carrion, birds, and even insects. They live in modified badger and ground squirrel burrows and hunt mainly at night, which explains why we're on this frozen prairie looking for swift foxes at an hour when sensible people are in bed.

Later, Rauscher points out how privileged we were to have observed an animal so few people ever see.

"Seeing a swift fox in the wild," he says, "is almost like looking into the past, to the era when these animals were commonplace on the prairie."

Andrew McKean manages FWP's regional Information and Education Program in Glasgow.

Montana's Picture Perfect State Parks

Over the past three years, *Montana Outdoors* has profiled some of the state's most historic, scenic, and fun state parks, including Makoshika, Giant Springs, Chief Plenty Coups, and Bannack. We'll continue to tell how other parks came to be and what to see and do there. But in this issue, we thought we'd let some spectacular images do the talking.

Above: The clear waters of Belt Creek flow north through a spectacular limestone canyon at Sluice Boxes State Park.

JOHN LAMBING

Below: At Missouri Headwaters State Park visitors share a view seen 200 years earlier by Captain Meriwether Lewis.

LIZ LEWIS

Above: Warblers, woodpeckers, and other birds abound at the Wayfarers unit of Flathead Lake State Park.
CRAIG & LIZ LARCOM

Top: A trout angler emerges from fishing at Spring Meadow Lake State Park.
CRAIG & LIZ LARCOM

Above: Touring Whitefish Lake State Park by kayak.
CRAIG & LIZ LARCOM

Below: A visitor walks to the old log cabin at tiny Parker Homestead State Park.
JEFF ERICKSON

Above: Late afternoon light warms historic buildings at Bannack State Park, the site of Montana's first territorial capital.
JEFF HENRY

Left: Stately Fraternity Hall at the Elkhorn State Park ghost town shows the pride early settlers took in their public buildings.
JEFF ERICKSON

Right: The well-preserved superintendent's house is all that remains of a mining camp at Granite Ghost Town State Park.
CRAIG & LIZ LARCOM

Left: The Apsáalooke leader's proud home at Chief Plenty Coups State Park is testament to the chief's hope that his people would adopt the best of both white and Indian cultures.
JEFF HENRY

Right: An all-too-brief rainstorm fills stone depressions atop the buffalo jump at Ulm Pishkun State Park.
JOHN LAMBING

Below: Replicas of early camp shelters are part of the cultural exhibits at Ulm Pishkun.
LIZ LEWIS

Above: Prehistoric paintings dating back 2,000 years depict hunting scenes at Pictograph Cave State Park.
PHIL FARNES

Left: Games help students learn the significance of historic routes like the Old North Trail, Road to the Buffalo Trail, and Nez Perce Trail, which pass through the Travelers' Rest State Park area.
NORMAN JACOBSON

Facing page: Like monstrous mushrooms, sandstone formations stand watch over the stark, alien landscape of Makoshika State Park.
DIANE HARGREAVES

Left: Colorful stalagmites rise from the bottom of Lewis and Clark Caverns State Park.
PHIL FARNES

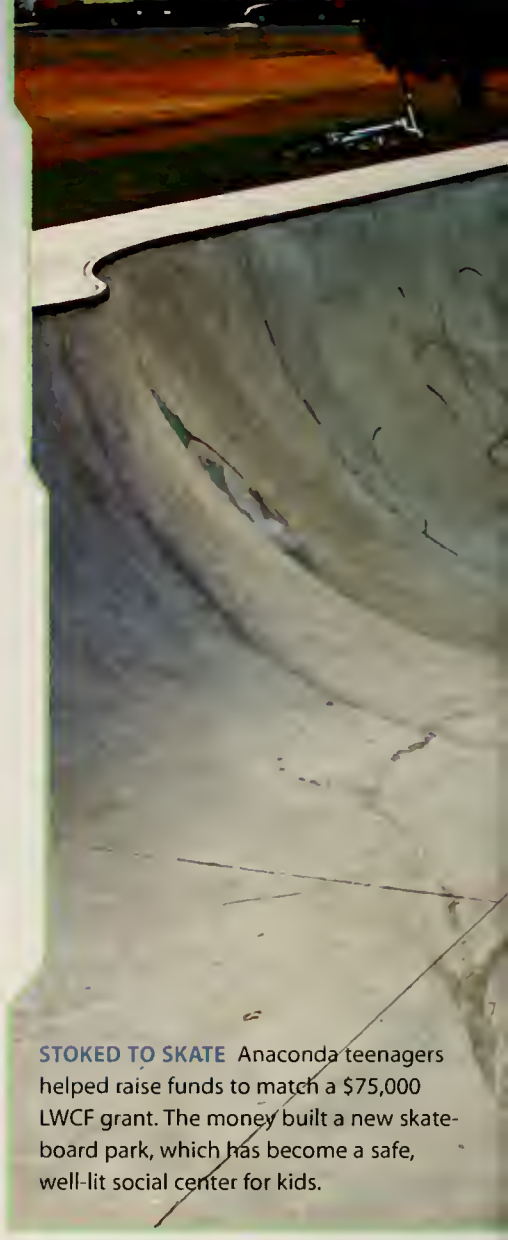
Below: As it has for centuries, the austere beauty of Medicine Rocks State Park enthralls all who visit this remote eastern Montana site.
CHUCK AND GALE ROBBINS

Learn more about Montana's 50 state parks at fwp.mt.gov.

Boosting Montana's Quality of Life

The LWCF, a little-known federal funding source, has helped build local parks, playgrounds, swimming pools,and other recreational facilities across the state. But will the money keep coming?

By Sam Curtis
Photos by Erik Peterson



STOKED TO SKATE Anaconda teenagers helped raise funds to match a $75,000 LWCF grant. The money built a new skateboard park, which has become a safe, well-lit social center for kids.

Anaconda skateboarder Tyler Kenney carves his board around the curves of the Smelter City Skate Pit and coasts to a stop, casually grabbing the board as he flips it up with his foot. For the 17-year-old high schooler and his teenage friends, the new skate park has become the town's social center, a place where kids can play, exercise, and hang out in a safe, well-lit environment.

"I'm here almost every day of the week," says Kenney. "At night, around 6 o'clock, it's packed with kids, and a lot of them aren't even skateboarding. They're just here to talk and visit."

For years, Kenney and his friends had been frustrated that the city lacked a skateboard park. So was Melinda Riley, interim planning director for the cities of Anaconda and Deer Lodge.

"The kids used to skateboard all around town, and they kept getting kicked out of other parks because they were damaging equipment and facilities," she says. "Finally, they actually came to the planning department and said, 'Look, we're willing to go somewhere else if you guys will build us a skateboard park.'"

County officials bought into the idea but lacked the funds to make it happen. So they applied for a $75,000 grant from a little-known federal program called the Land and Water Conservation Fund (LWCF). The fund was created expressly to help support local recreational facilities such as the one proposed by the Anaconda teens.

Local groups and individuals pitched in to help raise matching dollars required by the federal grant program. The skateboarders did their share too, holding several fundraisers that generated $6,000.

Kenney says he enjoyed helping raise money for the project. "It was good to be a part of that," he says. But when you ask him and his friends if they've ever heard of the Land and Water Conservation Fund, they say, "The *what*?"

You'll get the same response from most people who use and enjoy LWCF-funded outdoor recreational facilities around Montana. And that's not good, say state and local officials who have seen how the fund has boosted the quality of life in communities statewide. According to Walt Timmerman, Recreation Bureau chief for Montana Fish, Wildlife & Parks, which administers LWCF grants in Montana, the fund's low profile makes it extremely vulnerable to federal funding cuts. It's happened in the past—though only temporarily—but the program could very well disappear altogether.

"I'm afraid Montanans won't know it's gone until it's too late," Timmerman says.

40,000 projects nationwide

Congress established the Land and Water Conservation Fund in 1964 to provide quality outdoor recreational opportunities and conserve the land and water that support those opportunities.

Since then, the LWCF has funded more than 40,000 projects nationwide, in almost every county in the country. Typical projects are baseball fields, walking and riding trails, picnic sites, playgrounds, campgrounds, swimming pools, boat ramps, nature

reserves, and even hunting and fishing areas. Montana has received more than $33 million for outdoor recreation since the fund's inception. "I'd estimate that 90 percent of the recreational facilities built in Montana over the past 40 years have used LWCF funds," says Timmerman.

Recent grants included $30,000 to Polson to improve a ballpark, $71,000 to the Colstrip Park District for a new park pavilion, and $21,000 to Twin Bridges to improve its city park.

Since 1981, the fund has been administered at the federal level by the National Park Service. It has two components, one for federal projects like those carried out by the U.S. Forest Service and Bureau of Land Management, and another for state and local projects. The state and local component offers 50:50 matching funds (which in Montana can be up to $75,000).

LWCF-funded projects need to be sponsored by a city, town, county, school district, state agency, or tribal government. But anyone—citizen, club, neighborhood group—can propose a project.

"Project ideas can originate from anyone, as long as the official grant application comes from a political subdivision of the state willing to sponsor the project," says Timmerman.

Money for the LWCF, which is derived mainly from federal royalties from offshore oil and gas drilling leases, is appropriated each year by Congress. Depending on the mood of congressional leaders, the LWCF can receive a lot of money—$900 million annually during the 1980s—or nothing, such as during the period from 1995 to 1999, when Congress approved no LWCF funding for state or local projects.

"Those were some tough times," says Timmerman. "We don't want to go back there."

Quality of life issue

The loss of LWCF money is especially hard on local communities struggling to build basic amenities such as playgrounds or picnic grounds. For example, Butte city officials say the recent renovation of Stodden Park could not have been completed without the nearly $75,000 the city got from its LWCF grant.

"The park's sidewalks, crosswalks, and restrooms are now completely handicap-accessible," says Jennifer Kerns, a spokesperson for the Butte Public Works Department. "We were also able to resurface the basketball court and put in new barbeque pits, picnic tables, and playground equipment."

The 116-acre park also includes a golf course, swimming pool, horseshoe pits, tennis courts, softball fields, veterans' memorial, and amphitheater. "We've tried to make Stodden Park fit the needs of all ages," says Kerns. "I hate to sound corny, but it's every-

body's park. And the LWCF helps keep it that way."

In Bozeman, an LWCF-financed park is just getting off the ground. After "folfers" (Frisbee golfers) were banned from Lindley Park for damaging trees and interfering with other park users, they worked with the city to build a folf course on donated land. In addition to the LWCF funds, the new Rose Park is being built with $500,000 worth of donated fill and topsoil from a local construction and landscaping company.

"Rose Park will be a flagship disc golf park for the whole northwestern United States," says Craig Sward, a member of the local nonprofit group that is spearheading the effort. "It will be a disc golf community course with a miniature youth disc golf course designed around a picnic ground."

Not all LWCF grants go toward such grand amenities. A few years ago, Highwood day care provider Dorothy Forder worried that the playground equipment in the town's tiny community park was unsafe.

"The slide was old and too high, and it didn't even have a platform on the top," she says. "It was dangerous for little kids."

Forder took it upon herself to meet with Chouteau County officials to see what could be done. "When they told me what new equipment would cost, I thought, 'Oh, my gosh. That's a lot of money.'"

So Forder and other local citizens formed the Highwood Recreational Development Organization and worked with school and city officials to apply for LWCF matching funds. Timmerman recalls visiting the park in 2002 to see if the request had merit.

"School officials had said they needed new playground equipment because kids were actually getting hurt," he says. "So I went up there to look at the existing facilities. As I was walking around, I happened to see a boy with his arm in a cast. I asked him how he'd hurt himself, and he told me he'd fallen off the slide. I couldn't believe it."

THE SWING SET Families have been enjoying the new LWCF-funded playground, biking trails, picnic areas, and other renovations to Butte's popular Stodden Park.

> "I asked him how he'd hurt himself, and he told me he'd fallen off the slide. I couldn't believe it."
>
> —Walt Timmerman, *Montana FWP*

Needless to say, Timmerman okayed the grant, allowing the school to replace the aging playground equipment, landscape the park, add a garden, and install handicap-accessible walkways, benches, and picnic tables.

"We had our all-school reunion at the park this year," says Forder, "and everybody was absolutely flabbergasted at how beautiful it looked."

Timmerman says local residents often volunteer to carry out local projects. "When a town gets a grant," he says, "there's an awful lot of work done by local individuals and groups to make sure the project gets done."

In Twin Bridges, for example, residents laid sod for a new LWCF-funded ball field.

Timmerman adds that in small rural towns, a little bit of money can go a long way. Terry made good use of $5,300 for a new town playground. And Winnett used its $2,000 grant for a park sprinkler system. "In a town that size, an extra $2,000 can make the difference between getting the job done or going without," Timmerman says.

Sidney has been relying on LWCF funds for decades, says Terry Meldahl, public works director. "We've developed softball fields, football fields, parks, all kinds of things since the 1960s using this fund," he says. "As part of the grant, we always put up a sign that says 'Land and Water Conservation Fund.' But to be honest, I don't think anybody knows what it means."

The annual funding fight

That worries Meldahl, Timmerman, and others who know that LWCF funds help local communities, big and small. Though Montana's congressional delegation has long supported the LWCF, Timmerman suspects many others in Congress only associate parks with leisure or frivolous pursuits.

"I don't believe they comprehend how important a park can be to the health and well-being of a community," Timmerman says. "And I don't think many congressional leaders have seen how a little bit of money allows folks to leverage a whole project in their town."

Parks projects can also generate tourism dollars for local economies, he adds. "What it really gets down to is that the fund boosts the quality of life in towns across the country. That's not very well understood."

That lack of understanding was evident recently when President George W. Bush proposed eliminating the LWCF from the

Both Sam Curtis, a frequent contributor to Montana Outdoors, *and photojournalist Erik Peterson live in Bozeman.*

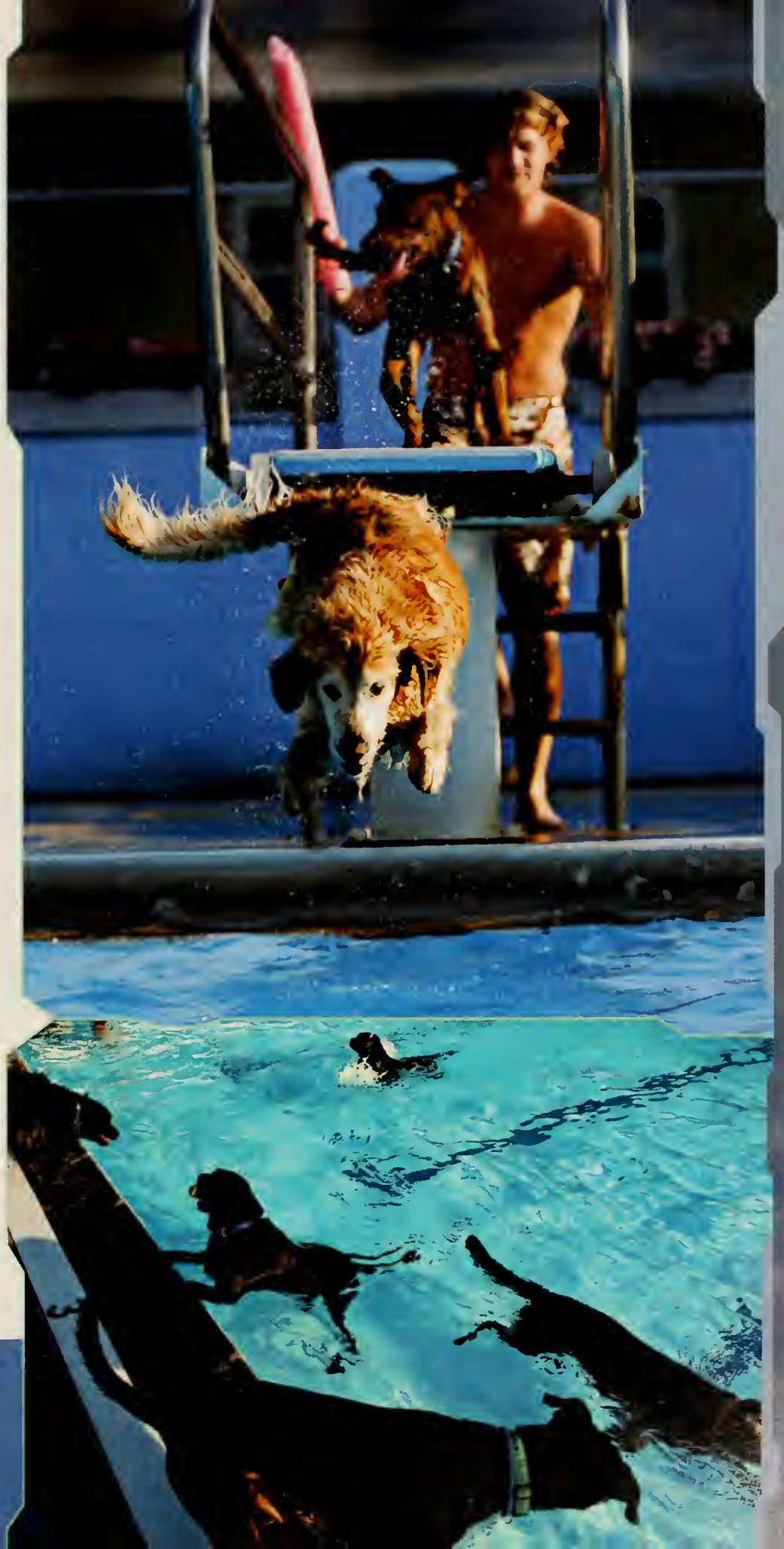
2006 budget and the House agreed with his idea. Fortunately, Montana Senator Conrad Burns, chairman of the Interior Appropriations Subcommittee, helped secure $30 million in appropriations. Of that, says Timmerman, Montana should receive roughly $250,000.

Unfortunately, that's just a fraction of the annual appropriations Congress authorized two decades ago. Timmerman says the ongoing funding deficiencies have created a backlog of projects waiting for LWCF grants. "There's a huge unmet need out there," he says. In 2002, FWP surveyed Montana's recreational facility managers to find out what it would cost to upgrade, purchase, and build essential outdoor recreational facilities across the state. The answer: more than $260 million.

In recent years, the nonprofit Americans for Our Heritage and Recreation, which calls itself the "Guardians of the Land and Water Conservation Fund," has lobbied Congress to restore funding to 1980s levels. Despite the group's efforts, however, the LWCF continues to be targeted by lawmakers who consider government spending on such programs to be a waste of taxpayer dollars.

"The problem is that too many elected officials in Washington don't hear from their constituents on matters like this," says Timmerman. "If everyone in the United States who uses LWCF-supported tennis courts, swimming pools, picnic areas, nature trails, and softball fields let Congress know how important these facilities are to them, there wouldn't be a funding problem. But as long as people don't know the fund exists, and that it's benefiting the quality of life in communities across America, I'm afraid it has a good chance of being completely eliminated."

Though funding for LWCF projects in Montana remains tight, there may still be funds available from the 2006 appropriation. To learn more about the application process, project selection criteria, and application deadlines, contact Walt Timmerman at (406) 444-3753; wtimmerman@mt.gov.



DOG DAY AFTERNOON Each Labor Day, dogs can take a dip in Bozeman's Bogart Park pool. But the era of federally supported local facilities like this one may be coming to an end.

Securely Shut

BY COLLEEN O'BRIEN

It felt as though we were the only people for miles. Once we found it nestled in the blackness of the moonless night, our tiny cabin proved cozy and well appointed. But the log beds, tables, and chairs, while lovely, did not delight me nearly as much as the baseboard heater. I gave the temperature knob a hearty twist. Only in Montana do you get an entire state park, the state's first state park at that, to yourselves.

I remember marveling at that thought as I stepped from the cabin and stood on the porch looking up at the stars, breathing in the chilly air, and pulled the cabin door closed behind me to keep the heat from escaping into the late-winter night. As the latch clicked securely shut, I suddenly realized what I'd just done. Peering through the window, we could see our wallets, keys, and blankets locked inside. A cold wind blew. It was 11 o'clock on a Friday night.

Tucked in the Jefferson River valley, Lewis and Clark Caverns State Park has much to recommend it. The site became Montana's first state park in 1937 so the public could see its wondrous underground attractions. From May through September, a $10 tour affords visitors a 2-hour, 2-mile exploration of the geology, ecology, and history of the limestone caves. The 3,034-acre park aboveground is open year-round.

Most park activity is in summer, when travelers along nearby Interstate 90 zip in for the underground tour. But there's plenty to do during the off-season. And from October through May, rental rates for the park's three cabins drop to just $25 per night.

Earlier that day, we'd hiked 3 miles to the mouth of the caverns, watching bluebirds skitter from tree to tree. We stepped past the first ephemerals of the year—yellowbells and pasqueflowers—and the occasional sun-bleached deer bone. The trail climbed a few miles before offering a magnificent view of the Jefferson River wending its way through the Tobacco Roots.

Interpretive signs explained some of the area's geology. Several described fossils present in the rock nearby. Just like those "magic eye" pictures, if we looked long enough, the fossils would appear. Soon we saw them everywhere. An interpretive display at the cave's entrance told about Lewis and Clark. Though members of the expedition never actually visited the caves, they explored the nearby Jefferson River.

The mouth of the cave remains gated in the off-season but still allows access for year-round inhabitants. I hollered in, expecting an echo, but instead was met with a frenzied flapping of wings. They were pigeons. The birds share their temperature-controlled dwelling (a constant 50 degrees) with bats, pack rats, mites, and spiders.

Freelance writer Colleen O'Brien lives in East Glacier.

That undaunted warmth is responsible for the cave's discovery. In the winter of 1892, Tom Williams and Bert Pannell interrupted their hunting trip to investigate what looked like smoke billowing from a mountain. After a rigorous climb, they instead found steam rising from the mouth of the caverns. Warm, moist air rises from the caves and then crystallizes in the cold before evaporating and drifting up into the sky. Six years later, Williams returned with friends to explore the caves. People have been doing the same ever since.

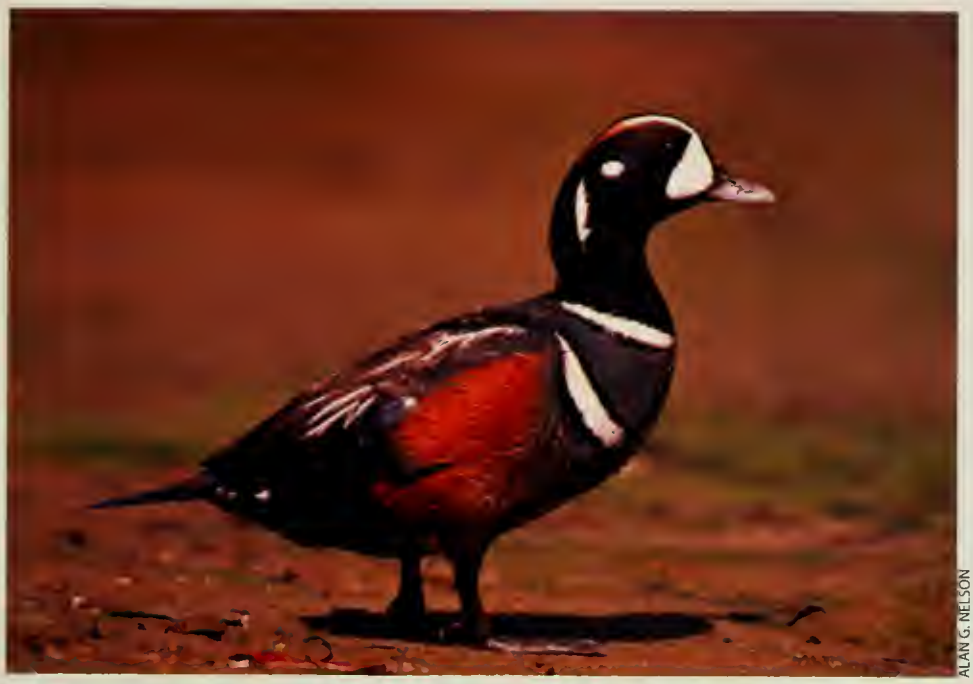
Lewis and Clark Caverns State Park is surrounded by many additional attractions. Before arriving at the park, we'd stopped near Pony to soak in Potosi Hot Springs ("hot" being a slight exaggeration). Afterwards, we made our way along well-marked back roads to Willow Creek for a slab of prime rib. Visits to Missouri Headwaters State Park, Virginia City, and Nevada City, along with Jefferson River trout fishing and a tour of the caverns, would have to wait for another trip.

MONTANA OUTDOORS ILLUSTRATION

Even the potentially disastrous cabin lock-out turned into a positive experience thanks to a spare vehicle key, a pay phone outside the bar in nearby La Hood, a boyfriend who somehow could remember all the numbers on the phone card back in the cabin, and an assistant park manager whom I'm nominating to have canonized. Where else but in Montana could you reach a park official in the middle of the night, and she responds with a cheerful, "No problem. I'll get dressed and be right there," even though she lives 12 miles away? Rhea Armstrong arrived like an angel in the cold, dark night and handed us the cabin's spare key.

I opened the door and then offered to return the key. Armstrong waved me off. "Keep it," she said, grinning. "People don't generally lock themselves out twice."

To make a cabin reservation, call Lewis and Clark Caverns State Park at (406) 287-3541.



ALAN G. NELSON

Harlequin Duck

Histrionicus histrionicus

By Ellen Horowitz

The rapid wingbeats of two small ducks caught my attention. The birds flew upstream only a few feet above the churning, swollen river and landed in an eddy about 50 yards away. The drab brown female blended into the background of river rocks. But her mate's bold colors and patterns gave the pair away as harlequin ducks. One of Montana's most unusual waterfowl species, the harlequin is the only duck in North America that requires clear, fast-moving mountain streams for part of its life. I felt lucky to see the handsome pair. Within minutes, they paddled toward the main river channel and let the rushing water sweep them farther downstream.

Since that day nearly 20 years ago, my spring traditions have included a search for this elusive whitewater wonder. The lords and ladies (as harlequin drakes and hens are known) seek the seclusion of wild, remote mountain streams. Only about 200 pairs nest in Montana. Glacier National Park boasts one of the densest populations of harlequins in the state, and the best opportunities for viewing them.

Freelance writer Ellen Horowitz lives in Columbia Falls.

NAMES The harlequin duck is named for the classical European theatrical clown who wore a multicolored costume and painted face. Its scientific name comes from the Latin word for actor. Known by early naturalists as circus duck and painted duck, the harlequin drake has a slate blue body, chestnut sides and cap, and white crescents and streaks on his face, shoulders, and back. The female wears muted brown plumage and has three white patches on her face. Due to the species' amazing affinity for whitewater, the harlequin is also known as surfer duck, mountain duck, and glacier duck. Its high-pitched call has also spawned the nicknames squeaker, squealer, and sea mouse.

LIFE HISTORY Scientists classify harlequins as sea ducks, yet the birds migrate inland to breed. The small population that nests in Montana each spring spends most of the year along the wave-battered Pacific Coast from Oregon to British Columbia.

Bachelor harlequins arrive in Montana in mid- to late April. Paired ducks show up about two weeks later. "The female brings her mate home to her natal stream," says John Ashley, a harlequin expert who teaches courses on the duck at the Glacier Institute.

At the stream breeding grounds, the lord guards his lady from would-be suitors and watches alertly as she feeds. If they sense danger, the ducks let the swift current whisk them to safety downstream. Harlequins typically remain mates for life, but the male takes no part in incubating or rearing the young. His bright colors would advertise the nest location and make the brood more vulnerable to minks, hawks, and other predators.

The female builds her well-concealed nest near the water's edge. She lays three to eight eggs that hatch in 28 days. Hatchlings practice paddling techniques in quiet backwaters. Their 600-mile aerial migration to the coast begins in September. Some females depart earlier, leaving the young to fend for themselves. Ashley estimates that only about ten percent survive to reach the average breeding age of three. Long-lived for a duck, the harlequin can reach 15 years of age.

FOOD Harlequins are visual feeders. They dive underwater probing among river cobbles for stonefly, mayfly, and caddis fly larvae. Along the Pacific, they also eat snails, crabs, and fish roe. The ducks use their powerful feet to swim against the current, wings held slightly outstretched as rudders.

WHEN AND WHERE TO VIEW The best place to spot harlequins is during May and June at Upper McDonald Creek in Glacier National Park near the Going-to-the-Sun Road. You can also spot them on streams along the Rocky Mountain Front, tributaries of the Lower Clark Fork River, and tributaries of the North, South, and Middle forks of the Flathead River. Because these shy ducks may abandon an area if disturbed, Ashley recommends watching them quietly from behind trees or shrubs.

STATUS IN MONTANA Ashley says harlequin populations along the Strait of Georgia off the coast of British Columbia (where most of Glacier's ducks winter) are showing a slow, steady decline. The greatest threats are oil pollution, degradation to breeding streams, and human disturbance to nesting birds. In Montana, the harlequin is listed as a species of special concern.

POOL PALS

A young swimmer and her beagle dry off after taking a dip in the public pool at Bozeman's Bogart Park during the annual Labor Day dog swim. Will Congress restore funding to the federal program that helped build this and hundreds of other recreational facilities across Montana? See page 32. Photo by Erik Peterson.

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